

Example No. 6: Mechanical Load Modeling of Laminate Structures to Optimize Weight-Reduction and Stability

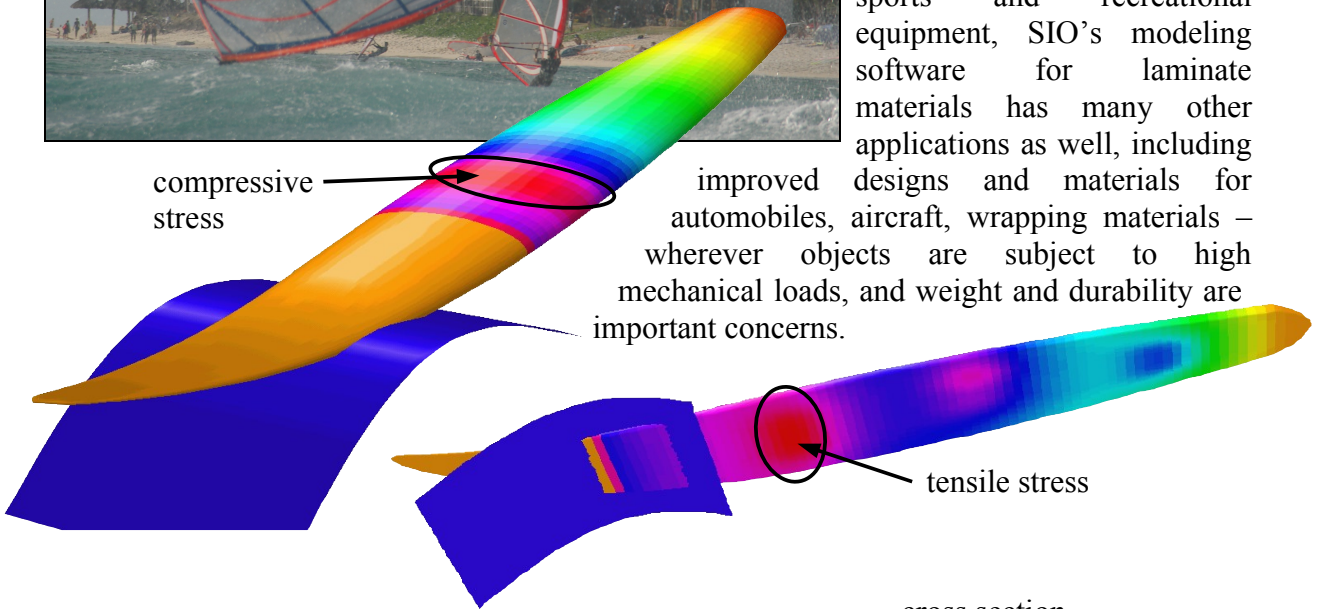
A common problem faced by engineers is how to design light-weight structures without compromising mechanical stability and durability. This example shows how SIO's proprietary software can be used in the design of sports equipment subject to severe mechanical loads. It can help determine optimal structural design without the need for

expensive and time-consuming trial-and-error testing. It can also facilitate experimental testing and analysis to aid in the selection of the most appropriate materials. In addition to applications for the design of sports and recreational equipment, SIO's modeling software for laminate materials has many other applications as well, including designs and materials for

automobiles, aircraft, wrapping materials – wherever objects are subject to high mechanical loads, and weight and durability are important concerns.

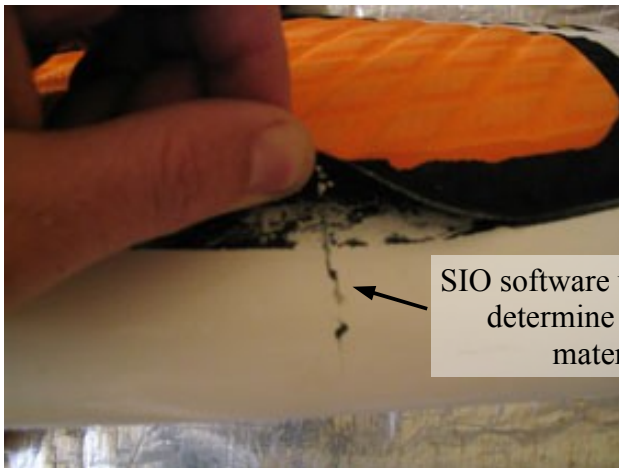


compressive stress



tensile stress

Windsurfing material failure analysis:
more info at www.siomec.de/documents



SIO software used to analyze and determine the cause of the material failure.

